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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,900	11/13/2003	Mahmoud M. Abdel-Monem	P05844US02	7757

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EXAMINER	
OH, TAYLOR V	

ART UNIT	PAPER NUMBER
1625	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,900	ABDEL-MONEM ET AL.	
	Examiner	Art Unit	
	Taylor Victor Oh	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Final Rejection

The Status of Claims

Claim 1 is pending.

Claim 1 has been rejected.

Claim Objections

The objection of claim 1 has been maintained due to the new issue arisen from the amendment although the previous error has been corrected.

In claim 1 , the phrase "1:1 a neutral complex" is recited. This is expression is improper. The examiner recommends to change from "1:1 a neutral complex" to "a 1:1 neutral complex" .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The rej ction of Claim 1 under 35 U.S.C. 102(b) as b ing anticipated clearly Cardinal (U.S. 2,849,468) has been changed to th rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Cardinal (U.S. 2,849,468).

The rejection of Claim 1 under 35 U.S.C. 102(b) as being anticipated clearly Cardinal (U.S. 2,849,468) has been changed to the rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Cardinal (U.S. 2,849,468).

Claim Rejections - 35 USC § 103

1. Applicants' argument filed 10/21/04 have been fully considered but are not persuasive.

The rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Cardinal (U.S. 2,849,468).

The rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Cardinal (U.S. 2,849,468) has been maintained below.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cardinal (U.S. 2,849,468).

Cardinal discloses the preparation of zinc salts of glutamic acid in the following example (see col. 4 ,lines 60-71):

EXAMPLE III

About 14.7 grams of glutamic acid were added to about 2 liters f water, and th resulting suspension was heated to dissolve the glutamic acid. About 20.4 grams of zinc chloride (0.15 mole) were added to the glutamic acid-containing solution, and sufficient sodium hydroxide was admixed with the resulting solution to produce a pH of about 7.3. The precipitated zinc salt was separated by filtration and was washed. About 97.0% of the glutamic acid was precipitated in the form of the zinc glutamate salt. An analysis of the product was approximately as follows:

5.1% nitrogen (theory 5.4%)
36.8% zinc (theory 37.8%)

Furthermore, the Cardinal has offered guidance that when the same salt is prepared from refined glutamic acid, the molar range of zinc from 1 mole to 2 moles is used per mole of the glutamic acid (see col. 4 , lines 5-7). In addition, zinc glutamate and the zinc magnesium are very insoluble in water; for this reason, zinc glutamate can be selectively and substantially completely precipitated in the salt form from the very dilute and crude solution (see col. 4 , lines 8-12). Also, glutamic salt is demand for the purpose of flavor enhancement of certain foods and food products (see col. 1 , lines 21-22).

Therefore, if the skilled artisan in the art had desired to produce a 1:1 neutral complex of zinc and glutamic acid different from the 1:1.5 neutral complex from Example III of the prior art, it would have been obvious to the skilled artisan in the art to be motivated to produce such a complex selectively and substantially as an alternative by using the teachings of the Cardinal reference because glutamic salt is in demand for the purpose of flavor enhancement. Also, this is because the skilled artisan in the art would expect the formation of the 1:1 neutral complex of zinc and glutamic acid to be successful as the guidance (see col. 4 , lines 5-7) shown in the prior art.

Applicants' Argument

Applicants argue the following issues:

a. Cardinal does not appreciate the difference between 1:1 and other ratios of complexes or even how to derive the current claimed invention of neutral 1:1 complexes ;

b. Claim 1 is not anticipated by Cardinal since it says that " zinc glutamate and the zinc magnesium are very insoluble in water; furthermore, the insolubility of the complex circumstantially indicates that the complexes is not 1:1;

c. Cardinal does not anticipate the present invention because Cardinal does not recite the limitation of a 1:1 neutral complex of essential trace elements and a dicarboxylic alpha amino acid.

Applicants' arguments have been noted, but the arguments are not persuasive.

First, regarding the first argument , the Examiner has noted applicants' arguments. However, Cardinal does disclose the guidance that the claimed formation of the 1:1 neutral complex of essential trace elements and a dicarboxylic alpha amino acid is quite possible by reviewing the passages (see col. 4 , lines 5-7), which describes expressly that when the same salt is prepared from refined glutamic acid, the molar range of zinc from 1 mole to 2 moles is

used per mole of the glutamic acid (see col. 4 , lines 5-7). Therefore, if the skilled artisan in the art had desired to produce a 1:1 neutral complex of zinc and glutamic acid different from the 1:1.5 neutral complex from Example III of the prior art, it would have been obvious to the skilled artisan in the art to be motivated to produce such a complex selectively and substantially as an alternative by using the teachings of the Cardinal reference because glutamic salt is in demand for the purpose of flavor enhancement. Also, this is because the skilled artisan in the art would expect the formation of the 1:1 neutral complex of zinc and glutamic acid to be successful as the guidance (see col. 4 , lines 5-7) shown in the prior art.

Second , regarding the second and third arguments , the Examiner has noted applicants' arguments. However, on the contrary to applicants' argument, the claim is directed to the formation of a 1:1 neutral complex crystals of the dicarboxylic alpha amino acid, such as zinc glutamate. This neutral complex is the same as the one disclosed in the prior art. Furthermore, although the exemplified complexes in the prior art is not anticipated as the claimed ratio 1:1 neutral complex, there is a teaching of the prior art (see col. 4 , lines 5-7) which allows for the skilled artisan in the art to make it quite obvious to produce the claimed 1:1 neutral complex. Therefore, applicants' argument is irrelevant to the issues of the currently claimed invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/9/05

Cecilia J. Tsang
Supervisory Patent Examiner
Technology Center 1600